

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A wind power generation system, comprising:

a frame;

an impeller rotatably supported by the frame;

plural field magnets aligned at equal intervals from the center of rotation in either the frame or the impeller; and

plural coils aligned circularly in the other,

wherein a relative motion of the field magnets and the coils within close distance generates an electric power under the reverse action of a linear motor;

wherein a space-adjusting means is provided for adjusting the gap.

2. (Original) A wind power generation system according to claim 1,

wherein the field magnets are aligned circularly around the vicinity of the periphery or medium portion of the impeller;

a ring-shaped member is provided in proximity to the field magnet in the frame; and

the coils are mounted on the ring-shaped member.

3. (Original) A wind power generation system according to claim 2,

wherein the ring-shaped member on which the coils are mounted is provided in one pair to place the field magnet in between and is provided circularly on the impeller;

the coils mounted on the one side of the ring-shaped member and the coils mounted on the other side of the ring-shaped member are divided into plural groups aligned alternatively or cyclically respectively for generating alternative currents;

the coils mounted on the one side having a specific phase and the coils mounted on the other side having a corresponding phase with the specific phase are circumferentially staggered in the alignment and the coils mounted on the one side and the coils mounted on the other side having a corresponding phase with the specific phase are connected in series.

4. (Original) A wind power generation system according to claim 3,

wherein the coils mounted on the one side and the coils mounted on the other side are divided respectively into a first coil group, a second coil group and a third coil group which are cyclically aligned so as to generate three phase alternative currents;

the first coil group of the coils mounted on the one side are staggered so as to face the second coil group of the coils mounted on the other side or the third coil group of the coils mounted on the other side.

5. (Original) A wind power generation system according to claim 2,

wherein the ring-shaped member has plural ring pieces of a given length connected into one shaped body; and

each ring piece comprises a core composed of superposed plural metal plates, the coils composed of a conducting wire wounded around its periphery, and

a synthetic resin solidifying the core and the coils into one body.

6. (Original) A wind power generation system according to claim 1,

wherein an annular supporting means is intervened between the periphery or the medium part of the impeller the

frame, for supporting at least a part of the weight of the impeller allowing rotation of the impeller.

7. (Original) A wind power generation system according to claim 3,

wherein the supporting means comprises a rolling body group or a sliding body group provided either on the frame or the impeller and a runway which contacts the rolling body group or the sliding body group provided on the other.

8. (Original) A wind power generation system according to claim 3,

wherein the above supporting means comprises a first magnet group provided on the frame and a second magnet group provided on the impeller so as to repel against the first magnet group.

9. (Original) A wind power generation system according to claim 8,

wherein the first magnet group is aligned in substantially continuous circularity to the frame; the impeller has plural blades aligned radially; the second magnet group is aligned radially to support the impellers.

Claim 10 (Canceled)

11. (Original) A wind power generation system according to claim 1,

wherein the system is so composed that in a condition of temporal weak wind power, a current is applied to a part or all of the coils to induce the linear motor action in the field magnets and the coils, thereby a rotation torque is given to the impeller.

12. (Original) wind power generation system according to claim 6,

wherein the supporting means comprises an annular guide whose center is disposed at the rotation center of either the frame or the impeller and a slider provided on the other and running along the guide.

Claims 13-25 (Canceled)

26. (Currently amended) A wind power generation system according to claim 10 1,

wherein the gap-adjusting means automatically keeps the gap between the field magnet and the coils within a given

range when the dimension of the flame or the impeller changes according to the ambient temperature change.

27. (Currently amended) A wind power generation system according to claim 10 1,

wherein the gap-adjusting means automatically adjusts the gap between the field magnet and the coils widening the gap when in weak winds and narrowing the gap when in strong winds.

28. (Original) A wind power generation system according to claim 1,

wherein at least some of the groups of coils in the coils are wired in series/parallel in a switchable way, generating low voltages in the parallel wiring in weak winds and generating high voltages in the series wiring in strong winds.

Claims 29-38 (Canceled)

39. (Original) A wind power generation system according to claim 1,

wherein the impeller comprises one pair of a ring, blades supported by the ring, a spoke-like supporting member

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provided on the ring, a boss provided at the center of the supporting member.

Claims 40-42 (Cancelled)